Attorney Docket No. 75274

COLOR SENSOR

ABSTRACT OF THE DISCLOSURE

A color sensor for generating color information defining colors of an image includes an input section, a color processing section, a color comparison section, a color boundary processing section and a memory processing section. The input section includes an array of transducer pairs, each pair defining one of a plurality of pixels. Each transducer pair generates two peak outputs, one for the selected color of each transducer of the pair. A plurality of pixel processors in the color processing section each receives the outputs from one of the transducer pairs. The color processing section generates a color feature vector representative of the brightness of the light incident on the pixels and a color value corresponding to the ratio of outputs from the transducers comprising the transducer pair associated with the pixels. The color boundary processing section generates a plurality of color boundary feature vectors, each representing the difference between the color value for a pixel and its neighboring pixels. The color comparator processor measures and compares the reflective color of two objects and the memory processor section provides a process to recognize a color, a boundary of color and/or a comparison of colors.